

# LAWN CARE FOR CLEANER AIR & GROW MORE MOW LESS

## 2014 ANNUAL REPORT



**LAWN CARE**

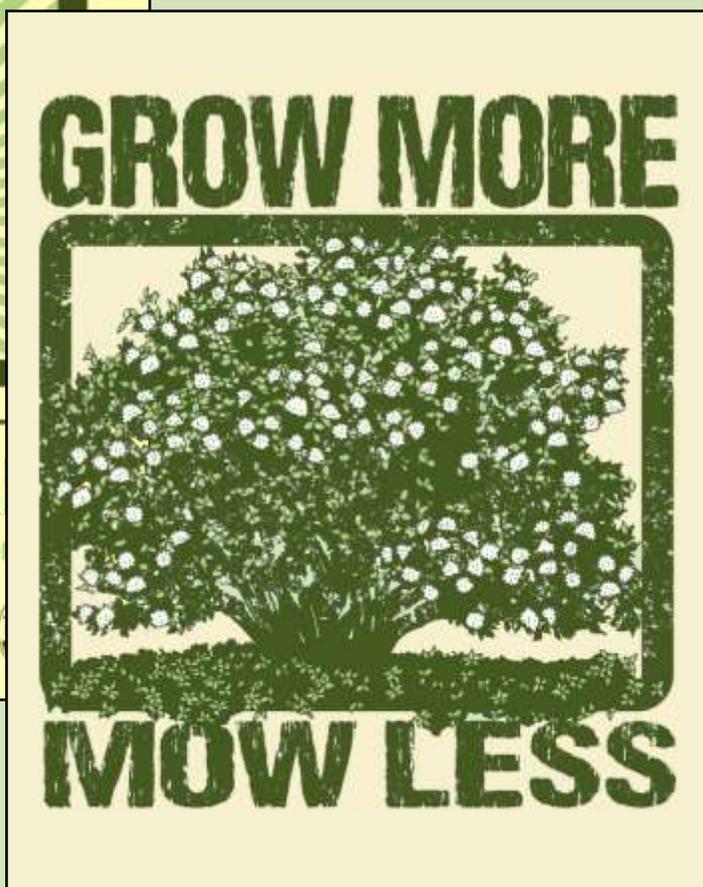


*for*

**CLEANER AIR**

Cut grass. Cut pollution.  
Up to \$100 rebate.

**apcd** [louisvilleky.gov/apcd/lawncare](http://louisvilleky.gov/apcd/lawncare)



**GROW MORE**



**MOW LESS**



Prepared by Bradley Coomes  
APCD Environmental Coordinator

## Executive Summary

This year was the eleventh year of the Lawn Care for Cleaner Air (LCCA) program and the second full year for the Grow More Mow Less (GMML) program. Both programs aim to reduce air pollution in Louisville by reducing lawn-related pollutant emissions.

The LCCA program, which has both residential and professional levels, incentivizes cleaner lawn equipment use by Jefferson County residents through rebates and public awareness. Between the Lawn Care for Cleaner Air (LCCA) and Lawn Care for Cleaner Air Professional (LCCAP) programs, the Air Pollution Control District (APCD) issued a total of 466 rebates in 2014, worth \$24,265.00. The program succeeded in keeping 51,173 pounds of harmful carbon monoxide, oxides of nitrogen, volatile organic compounds, and particulate matter out of Louisville's air.

Assuming continued use of equipment since purchase, the LCCA program has kept 6,277,122 pounds of criteria pollutants out of Louisville's air over its 11-year history.

GMML is a complementary program that engages in thought leadership to persuade Louisvillians to replace high-maintenance turfgrass with plants they don't have to mow. The program's popularity and visibility has grown exponentially over the last year as shown by the number of likes on the GMML Facebook page increasing tenfold.

In April 2014, Bradley Coomes, an APCD Environmental Coordinator, took over the Lawn Care for Cleaner Air and Grow More Mow Less programs. With this change of leadership after the season was already underway, there was little time to plan public events and speaking engagements. We are hoping for a more robust schedule in 2015.

# I. Introduction

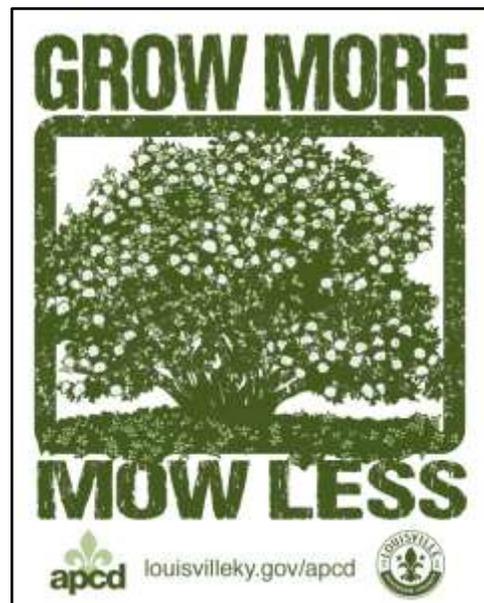
There are over 71,000 mowable acres in Louisville. That’s a lot of grass. Perhaps it’s not completely surprising then that lawn maintenance-related air pollution (that is, pollution caused by lawn mowers, leaf blowers, and string trimmers) accounts for about 20.5 million pounds of air pollution in Louisville every year (7,100,000 pounds without CO<sub>2</sub>). This includes some 720,800 pounds of volatile organic compounds and 34,500 pounds of nitrous oxides, both of which are principal contributors to the formation of ground-level ozone. Worse yet, most of these emissions occur during the warm months of the year, when Louisville often struggles with elevated levels of ozone.



In order to reduce these lawn-related emissions, the Air Pollution Control District (APCD) created the Lawn Care for Cleaner Air program (LCCA) in 2003. LCCA gives rebates to Louisville residents on electric and reel lawn equipment and double rebates to those who recycle their old lawn equipment with Louisville Metro Solid Waste Management Division.

After years of promoting the idea of air-friendly landscaping through the LCCA program, in 2012 APCD spun off a sister program called “Grow More Mow Less” (GMML). GMML

encourages people to replace their turfgrass with plants that don’t require mowing. To this end, GMML has been a regular presence at public events and on social media. The program has also engaged in demonstration and pilot projects, from a native plant garden, to low-mow turfgrass plots, to native grass test plots on roadsides, and vacant lots.



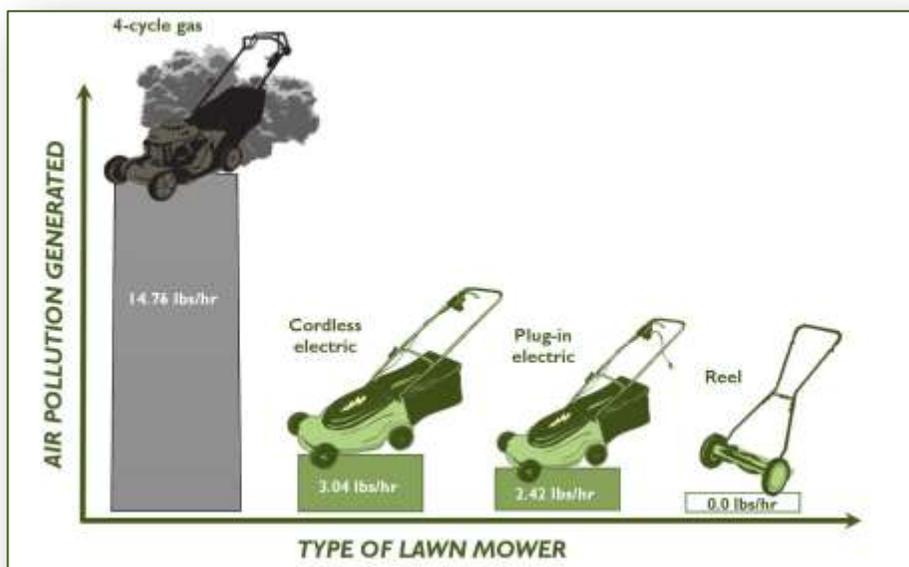
## II. Lawn Care for Cleaner Air (LCCA)

Electric lawn equipment can make a difference. Electric equipment emits less than 1/5 of the pollution of gas-powered equipment.<sup>1</sup>

Without electric lawn equipment, Louisville would have 2.6 million more pounds of air pollution every year, including 1 million pounds of carbon monoxide, nitrous oxides, and volatile organic compounds.

Eliminating this pollution helps Louisville meet the National Ambient Air Quality Standards (NAAQS) and helps us all breathe a little easier.

The LCCA program offers rebates for equipment for residential applications (equipment that is powered to handle 1/3 of an acre or less) and more powerful equipment for professional and larger property applications (equipment that is powered to handle 1/3 of an acre or more). The residential side of the program remains the far more popular option, handing out the vast majority of our rebates. In 2014, LCCA Residential distributed a total of 466 rebates worth \$24,265.00 to Jefferson County residents. That is down from the 558 rebates worth \$27,180 in 2013, but about on par with the 510 rebates worth \$27,120 in 2012.



*Includes CO, CO<sub>2</sub>, PM, NO<sub>x</sub>, SO<sub>2</sub>, and VOCs*

<sup>1</sup> These figures include carbon dioxide (CO<sub>2</sub>), a greenhouse gas of concern, though it is not a criteria pollutant defined in the Clean Air Act. Those criteria pollutants, including oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOC) – an ozone precursor, and particulate matter (PM) are produced in much smaller quantities relative to CO<sub>2</sub>. However, these pollutants can have health effects at much lower levels. The relative proportion by which air pollution is reduced with the switch from gas to electric equipment stays roughly the same with or without CO<sub>2</sub> in the equation.

During the 2012 lawn care season, LCCA Professional (then called “the commercial program”) switched from giving rebates for trading in a 2-cycle gasoline string trimmer or leaf blower and buying a 4-cycle piece of equipment to giving rebates on higher power electric equipment when trading in a gas-powered equivalent.



We did this for two reasons: 1) new EPA regulations have phased out the dirtier 2-cycle equipment, meaning we are already seeing the air pollution benefits of a 2-cycle-to-4-cycle transition without incentivizing the switch with rebates; and 2) more powerful electric equipment came on to the market.

We now offer standard rebates on any electric equipment with 100 watt-hours of running time at \$30 per trimmer or leaf blower (without battery) and \$50 per battery. Additionally, in order to further spur the market for commercial electric equipment, we offered to create an alternative rebate with matching funds of up to \$50 per trimmer, leaf blower, and battery to all manufacturers of eligible equipment. STIHL agreed to match our offer, and we are now offering rebates of \$100 on STIHL electric trimmers, leaf blowers, and AP 160 batteries.

Like in 2013, we processed very few LCCA Professional rebates this year. Some of our participating retailers have expressed to us that they are having a hard time selling the more powerful battery-operated machinery. It seems that among the professional lawn care community, there is still a hesitation to switch over from gas-powered equipment. We will continue to look for creative ways to market the program in 2015.

### **III. Grow More Mow Less**

The Grow More Mow Less program (GMML) is based on this simple idea: reducing the amount of turf grass that needs to be maintained, either with traditional gas-powered equipment or with cleaner, electric-powered equipment yields a pollution savings of 100 percent.

Accordingly, GMML seeks to reduce lawn-related air pollution in Louisville by encouraging landowners to switch to low-mow landscaping—trees, shrubs, groundcover, flowers ornamental grasses, edible plants, and low-mow turfgrass.

These low-mow plants also have many co-benefits beyond their contributions to cleaner air, such as stormwater management, reduction of the urban heat island effect through shade and evapotranspiration, and increased habitat for wildlife such as birds and beneficial insects.

## IV. Public Outreach

We market both the LCCA and GMMML programs in a variety of ways, including, but not limited to: print and web-based advertising, social media, attending public events, and creating demonstration gardens.

### A. Advertising

In 2014, LCCA spent \$12,997.34 on advertising, including ads with the *Courier-Journal*, *courier-journal.com*, Louisville Public Media, the *Louisville Eccentric Observer*. The 2014 level of advertising was down approximately 10% from 2013 levels. The decrease in advertising spending was due to a decrease in budget and a change in program administrators causing a lack of continuity in planning from the previous year. Despite the decrease in ad spending, we managed to distribute \$1.87 in rebates for every \$1 we spent on advertising.



This year, in an effort to boost late season rebates and highlight the Professional program, we ran a fall ad in the *Courier Journal* and the on *Courier's* website. Despite the late season ads, we did not see an increase in fall rebates over the previous year with 17 rebates in fall 2014 for a total of \$980 compared to 18 in the fall of 2013 for a total of \$1,995.

## B. Social Media/Web Presence

The GMMML Facebook page is now up to 1,030 likes (up from just 114 likes at the end of 2013). We ran a promotion on the Facebook page in the spring in which followers of the page could sign up for a Grow More Mow Less Starter Packet containing an introductory letter, sticker, and seed packets. We sent out over 200 of these packets.

The LCCA and GMMML websites, along with all Metro Louisville sites, received a facelift in 2014. Our LCCA homepage, [louisvilleky.gov/government/lawn-care-cleaner-air](http://louisvilleky.gov/government/lawn-care-cleaner-air), now looks like this:



Our GMMML website, [louisvilleky.gov/government/air-pollution-control-district/grow-more-mow-less](http://louisvilleky.gov/government/air-pollution-control-district/grow-more-mow-less), has a similar look:



### C. Public Events

The number of Grow More Mow Less public events was down significantly in 2014 from 2013. This was due to a new coordinator taking over the program in April. We did attend a Louisville Public Media Live Lunch (which we sponsored) on June 6, 2014 and the Sobro ArtWalks Festival on September 14, 2014.

Along with the events we attended, we also provided materials for the following events and/or organizations: Resurfaced Pop-up Plaza on Main, Sobro Louisville, and the Louisville Sustainability Forum.



*Grow More Mow Less Table at the Sobro ArtWalks Festival*



*LCCA/GMML table outside the Live Lunch studio at Louisville Public Media*

**D. Demonstration Gardens** Demonstration and test plots comprise the other principal means of communicating GML principles. By actually installing low-mow vegetation, we are able to experiment with new plants, demonstrate methods to the public, and reduce Louisville Metro’s own mowing needs. And while we did not install any new demonstration plots this year, we maintained the ones started from previous years and installed an educational sign in the Kentucky Native Clean Air Demonstration Garden at the entrance to the Urban Government Center at 810 Barret Ave.

This sign switches seasonally

between a Spring/Summer and Fall/Winter version to help identify the plants at any time of year.



*These signs provide a key for the plants featured in the garden and step by step instructions on how to create your own low-mow landscape*

## **IV. Looking Ahead**

We are looking forward to a great year with more public events, a more robust advertising strategy, an increased social media presence, and new partnerships. Hopefully this will all add up to more rebates, more low-mow yards, and more emissions reductions in Jefferson County. Here is what we have planned for both programs:

### **A. Lawn Care for Cleaner Air**

#### **1. Increased Advertising**

2014 saw another decrease in budget and advertising spending. While still a smaller budget than years past, we plan on increasing spending on advertising in 2015. We have already started sowing the seeds for this coming spring by running late season ads in 2014.

#### **2. LCCA Professional**

We will continue to evaluate the Professional program in an attempt to raise awareness of newer, more powerful electric lawn equipment and increase Professional rebates. We will work with our participating retailers to identify strategies to reach out to this program's target audience.

### **B. Grow More Mow Less**

#### **1. Continued Use of GMML materials and Public Events**

GMML is a natural fit for the many sustainability and gardening-related public events that take place in Louisville every year. The program now has a full array of outreach materials including seed packets, seed cards, and bumper stickers—with which to communicate the idea of planting low-mow landscaping and helping keep the air clean.

#### **2. Building New Partnerships**

We would like to partner with schools, businesses, civic agencies, and individuals on new Grow More Mow Less projects and perhaps create "Grow More Mow Less Schools" and "Grow More Mow Less Business" materials and signage.

#### **3. Facebook Advertising**

We hope to continue the great strides that we made this year on the GMML Facebook page. We are also looking into more strategic ways to advertise on Facebook.

## **V. Conclusion**

Although 2014 was a transitional year for the LCCA and GMMML programs, we still managed to distribute 466 rebates worth \$24,265.00 and keep 51,173 pounds of pollution out of the air. Not only that, but we were able to increase our likes on the GMMML Facebook page tenfold. We will build on these successes and with an increase in advertising spending and a more robust public events schedule, the LCCA and GMMML programs can again begin to grow in 2015.